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90-468

No.

IN THE
SUPREME COURT OF THE UNITED STATES
OCTOBER TERM, 1990

DONALD D. BERTOLA,

Petitioner,

v.

THE STATE OF NEW JERSEY,

Respondent.

PETITION FOR A WRIT OF CERTIORARI
TO THE SUPREME COURT OF
THE STATE OF NEW JERSEY

Thomas E. Doig, Jr.
Counsel of Record
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Attorneys for Petitioner

QUESTIONS PRESENTED

1. Whether a "per se" definition of intoxication as determined by a scientific instrument violates a defendant's due process rights pursuant to the Fifth and Fourteenth Amendments of the United States Constitution.

2. Whether a scientific device such as the breathalyzer which has been determined to overestimate or underestimate a true blood alcohol level in 86% of the cases may be used to conclusively determine the guilt or innocence of a driver accused of drunken driving.

3. Whether, for the sole purpose of obtaining Department of Transportation grants, the State of New Jersey may pass a law which deprives a defendant of his due process rights under the Fifth and Fourteenth Amendments, as well as depriving a defendant of his Sixth Amendment right to a fair and impartial trial.

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IN THE SUPREME COURT OF THE UNITED STATES

OCTOBER TERM, 1989

NO.

DONALD D. BERTOLA, PETITIONER

v.

STATE OF NEW JERSEY

PETITION FOR A WRIT OF CERTIORARI TO THE SUPREME COURT OF NEW JERSEY

The petitioner, Donald D. Bertola, respectfully requests that a Writ of Certiorari issue to review the judgment of the Supreme Court of the State of New Jersey denying a petition for certification, thereby affirming the conviction of the defendant of a violation of driving under the influence of alcohol.

OPINIONS BELOW

The opinion of the trial court, (Municipal level is unpublished but appears as Appendix B, page 22a through 25. The matter was then appealed to the Monmouth County Court on a trial de novo and the opinion appears as Appendix B, page 26a through 28a. The petitioner then appealed to the Appellate Division of the New Jersey Superior Court and the opinion appears as Appendix B pages 30a through 36a.

The petitioner applied for certification to the New Jersey Supreme Court which was denied Appendix B, page 29a. None of the above opinions were published. However, directly applicable to this case and decided only one week prior is the case of State v. Downie published at 117 N.J. 450 (1990).

JURISDICTION

1. The judgment of the Supreme Court of New Jersey was entered on February 7, 1990 (Appendix B, infra, 37a). It is final by its terms.

2. The federal question was raised by way of motion at the municipal court level, again in the Appellate Division (Appendix. B, 35a) and again in petitioner's application for certification to the New Jersey Supreme Court as reproduced in Appendix C pages 38a - 60a.

LIST OF PARTIES

The parties listed in the caption are the only parties involved; however the Governor of the State of New Jersey and the New Jersey Attorney General have been put on notice by service of a copy of this petition upon each.

CONSTITUTIONAL AND STATUTORY PROVISIONS INVOLVED

1. The Fifth Amendment to the United States Constitution provides in relevant part:

> No person * * * shall be deprived of life, liberty, or property, without due process of law * * *.

2. The Sixth Amendment to the United States Constitution provides in relevant part:

> In all criminal prosecutions the accused shall enjoy the right to * * * be confronted with the witnesses against him.

3. The Fourteenth Amendment to the United States Constitution provides in relevant part:

> No state shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States; nor shall any State deprive any person of life, liberty, or property, without due process of law; nor deny any person within its jurisdiction the equal protection of the laws.

4. Paragraph (a) of the New Jersey drunken driving laws, N.J.S.A. 39:4-50 provides in relevant part:

> A person who operates a motor vehicle with a blood alcohol concentration of 0.10% or more by weight of alcohol in the defendant's blood * * * shall be subject:
> (1) For the first offense ***

STATEMENT

1. The defendant was arrested for drunken driving in the Township of Marlboro, in the County of Monmouth and State of New Jersey on March 22, 1987. In a trial at the municipal court level both the petitioner and the State of New Jersey introduced expert scientific testimony as to the reliability of a breath-alcohol testing device known as the "breathalyzer" and in particular testimony relative to the variability of the blood-breath ratio and other variables affecting that reliability. As a result of that testimony the judge found that these variables could affect the instrument's reading as it concerned the individual defendant, but incorrectly concluded that the defendant must come forward with evidence excluding him from

the average class of individuals for whom the breathalyzer might work. As a result, and because this defendant had a reading of 0.12% blood alcohol, the petitioner was convicted of driving under the influence under the "per se" portion of the applicable New Jersey Statute (Appendix B infra, 5a-6a).

2. At about the same time, Francis X. Moore, Esquire, an attorney also practicing in Monmouth County convinced the assignment judge of that county to consolidate four municipal court cases from various municipalities within the county for purposes of conducting an evidentiary hearing as to the reliability of the breathalyzer as applied in those cases. The ostensible purpose was to conserve resources. The Monmouth County Prosecutor objected to this procedure and took an

interlocutory appeal to the New Jersey Appellate Division contending that the breathalyzer had previously been found to be reliable and that neither the municipal courts nor the superior courts had any right to take evidence as to reliability.

3. Also at about the same time the assignment judge of Burlington County, New Jersey entertained an appeal from a municipal court conviction and conducted an evidentiary hearing which resulted in a finding that the breathalyzer was indeed unreliable and that at a minimum, at least 0.055% should be deducted from every reading to get a more accurate picture of the true blood/breath alcohol reading of any given defendant. State v. McGinley, 229 N.J. Super 190 (Law Div. 1988).

4. The petitioner proceeded by taking an appeal to the Law Division of the Superior Court of New Jersey pursuant to a de novo procedure as required by the Rules of Court. At this hearing the Superior Court judge, John A. Ricciardi, refused to look at any of the scientific testimony and again convicted the defendant of a per se" violation of the statute. He also went on to convict the petitioner on the basis of other evidence adduced at trial, saying that such evidence sustained the conviction absent the breathalyzer reading. However, Judge Ricciardi commented on the pending interlocutory appeal at the Appellate Division, saying that if it was determined that the scientific evidence should be considered, he would review the

petitioner's case in a different light and reconsider his finding in view of that ruling. (Appendix B, infra, 26a-28a).

5. The Appellate Division of the Superior Court finally addressed the interlocutory appeal and determined that the scientific arguments and other expert testimony raised serious question as to the reliability of the breathalyzer, but that in light of the New Jersey Supreme Court's prior decisions, it could not pass on the reliability of the machine, thus overruling McGinley, supra. However, in doing so it requested that the New Jersey Supreme Court look at the issue. It gave the various defendants sufficient time to petition the New Jersey Supreme Court to address the issue, which was subsequently accomplished by the said defendants. State v. Downie, 229 N.J. Super. 207 (App. Div. 1988).

6. The petitioner learned of the grant of certification and while having filed an appeal to the Appellate Division, he also sought direct certification to the New Jersey Supreme Court and asked for consolidation with Downie, supra. This was denied (Appendix B, infra, 10a). Oral argument was had and the Appellate Division, again refusing to address the issue of reliability as raised by the scientific evidence, convicted the petitioner on the basis of the extrinsic evidence, avoiding the "per se" violation altogether. (Appendix B, infra, 30a - 36a)

7. In entertaining the four cases consolidated under Downie, supra, the New Jersey Supreme Court elected to conduct an evidentiary hearing under the auspices of a special master as they had previously

done when the question of the effect of radio frequency interference was raised as a challenge to the reliability of the breathalyzer. See Romano v. Kimmelman, 96 N.J. 66 (1984). The matter was then assigned to Judge Patrick J. McGann, Jr., of the Law Division of the Superior Court. Judge McGann conducted a multi-day examination, wherein ten noted experts in the field testified as to the reliability of the breathalyzer. Thereafter, he prepared a written synopsis of the testimony, an overview of the hearing and seven conclusions of fact. This report is included in its entirety as Appendix D, pages 62a - 105a.

8. The petitioner again sought certification to the New Jersey Supreme Court. However, on October 23, 1989 the Supreme Court of New Jersey took final

arguments in light of the master's report and conclusions of fact and set forth their decision on January 31, 1990, finding that the breathalyzer was reliable, and that lower courts must henceforth take judicial notice of that reliability. The decision in that matter is State v. Downie, 117 N.J. 450 (1990) Seven days after announcing that decision, the petitioner's application for certification was denied (Appendix B, infra 37a).

REASONS FOR GRANTING THE PETITION

This case presents the simple questions of whether trial by machine can constitute due process under the United States Constitution, and whether the inability to refute the evidence produced by the machine violates a defendant's right to present witnesses and to confront those

witnesses presented against him. There can be no question that the New Jersey Statute now is a "per se" statute (Appendix A, infra, 5a - 18a) and that this "per se" proscription is a result of the Legislature's desire to obtain Federal Highway grants which mandate the inclusion of such a statute as a prerequisite to obtaining these funds (Appendix A, infra, 18a). The question that must be asked is whether this constitutes sufficient state interest to warrant the suspension of due process as guaranteed by the Fifth and Fourteenth Amendments.

A more serious question that deserves resolution is whether, in light of scientific testimony to the contrary, the State of New Jersey can suspend a defendant's right to present evidence and challenge the findings of the breathalyzer.

At the evidentiary hearing conducted by Judge McGann, Dr. Robert Borkenstein, the recognized "father" of the breathalyzer, testified that in designing the breathalyzer, the device was not intended to be used as a "per se" device, but it's results only as another piece of evidence for consideration by the trier of fact. (Appendix D, infra, 77a). Another expert, Dr. Dubowski, whom the trial court found to be the most impressive witness, emphatically asserted that the breathalyzer should never be used as a "per se" device. Despite this testimony, the New Jersey Supreme Court pressed forward it's decision to affirm the reliability of the machine and it's use to substantiate "per se" violations of the statute. The Court recognized that the machine could wrongfully convict 2.4 percent of those

accused. The Court recognized that there were multiple factors, including the accused's general health, sex, body temperature, a women's menstrual cycle, medication, oral contraceptives and an individual's hematocrit which could affect the machine's reading. See Downie, supra, 462. Recent scientific studies have also revealed that the ingestion of diet soda and diet foods, as well as exposure to industrial chemicals, can cause a measurable breathalyzer reading without the ingestion of alcohol.

If the "per se" portion of the New Jersey Statute is allowed to stand, it will, in fact impair the ability of the ultimate trier of fact to impartially determine the guilt or innocence of an accused. Both the New Jersey Supreme Court and this Court have already

determined that the ultimate test of any presumptive device's constitutional validity remains constant: the device must not undermine the factfinder's responsibility at trial, based on evidence adduced by the State, to find ultimate facts beyond a reasonable doubt. Ulster County v. Allen, 442 U.S. 140 (1979), State v. Ingenito, 87 N.J. 204 (1981).

Prior to their 1984 amendment, the New Jersey drunken driving statutes treated a breathalyzer reading of 0.10% or greater as a rebuttable presumption. After the amendment such a reading became a conclusive or mandatory presumption incapable of being rebutted. It is respectfully submitted that this is absolutely unconstitutional as it allows the State of New Jersey to prove guilt beyond a reasonable doubt simply by

relying on a rule of law. Sandstrom v. Montana, 99 S. Ct. 2450, 442 U.S. 510, 61 L. Ed. 2d 39 (1979). The holding of the New Jersey Supreme Court deprives the defendant of the right to call witnesses in violation of his Sixth Amendment rights Cf. Rock v. Arkansas, 483 U.S. 44, 107 S.Ct. 2704, 97 L. Ed. 2d. 37 (1987).

CONCLUSION

The petition for a Writ of Certiorari should be granted.

Respectfully submitted,

Thomas E. Doig, Jr.
Attorney for the Petitioner

APPENDIX A

CONSTITUTIONAL PROVISIONS AND STATUTES

AMENDMENT [V.]

Capital crimes; double jeopardy; self-incrimination; due process; just compensation for property

No person shall be held to answer for a capital, or otherwise infamous crime, unless on a presentment or indictment of a Grand Jury, except in cases arising in the land or naval forces, or in the Militia, when in actual service in time of War or public danger; nor shall any person be subject for the same offensce to be twice put in jeopardy of life or limb; nor shall be compelled in any criminal case to be a witness against himself, nor be deprived of life, liberty, or property, without due process of law; nor shall private property be taken for public use, without just compenstaion.

AMENDMENT [VI.]

Jury trial for crimes, and procedural rights

In all criminal prosecutions, the accused shall enjoy the right to a speedy and public trial, by an impartial jury of the State and district wherein the crime shall have been committed, which district shall have been previously ascertained by law, and to be informed of the nature and cause of the accusation; to be confronted with the witnesses against him; to have compulsory process for obtaining witnesses to his favor, and to have the Assistance of Counsel for his defensce.

AMENDMENT [XIV.]

1. Citizenship rights not to be abridged by states

Section 1. All persons born or naturalized in the United States, and subject to the jurisdiction thereof, are citizens of the United States and of the State wherein they reside. No State shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States; nor shall any State deprive any person of life, liberty, or property, without due process of law; nor deny to any person within its jurisdiction the equal protection of the laws.

NEW JERSEY DRUNKEN DRIVING STATUTE

39:4-50 Operating or allowing operation by person under influence of liquor or drugs; penalties; alcohol education or rehabilitation; collection of driver's license; rights of discovery; intoxicated driver resource centers.

(a) A person who operates a motor vehicle while under the influence of intoxicating liquor, narcotic, hallucinogenic or habit-producing drug, or operates a motor vehicle with a blood alcohol concentration of 0.10% or more by weight of alcohol in the defendant's blood or permits another person who is under the influence of intoxicating liquor, narcotic, hallucinogenic or habit-producing drug to operate a motor vehicle owned by him or in

his custody or control or permits another to operate a motor vehicle with a blood alcohol concentration of 0.10% or more by weight of alcohol in the defendant's blood, shall be subject:

(1) For the first offense, to a fine of not less than $250.00 nor more than $400.00 and a period of detainment of not less than 12 hours nor more than 48 hours spent during two consecutive days of not less than six hours each day and served as prescribed by the program requirements of the Intoxicated Driver Resource Centers established under subsection (f) of this section and, in the discretion of the court, a term of imprisonment of not more than 30 days and shall forthwith forfeit his right to operate a motor vehicle over the highways of this State for a period of not less than six months nor more than one

year.

(2) For a second violation, a person shall be subject to a fine of not less than $500.00 nor more than $1,000.00, and shall be ordered by the court to perform community service for a period of 30 days, which shall be of such form and on such terms as the court shall deem appropriate under the circumstances, and shall be sentenced to imprisonment for a term of not less than 48 consecutive hours, which shall not be suspended or served on probation, nor more than 90 days, and shall forfeit his right to operate a motor vehicle over the highways of this State for a period of two years upon conviction, and, after the expiration of said period, he may make application to the Director of the Division of Motor Vehicles for a license to operate a motor vehicle, which application may be

granted at the discretion of the director, consistent with subsection (b) of this section.

(3) For a third or subsequent violation, a person shall be subject to a fine of $1,000.00, and shall be sentenced to imprisonment for a term of not less than 180 days, except that the court may lower such term for each day, not exceeding 90 days, served performing community service in such form and on such terms as the court shall deem appropriate under the circumstances and shall thereafter forfeit his right to operate a motor vehicle over the highways of this State for 10 years.

If the driving privilege of any person is under revocation or suspension for a violation of any provision of this Title at the time of any conviction for a violation of this section, the revocation

or suspension period imposed shall commence as of the date of termination of the existing revocation or suspension period. A court that imposes a term of imprisonment under this section may sentence the person convicted to the county jail, to the workhouse of the county wherein the offense was committed, to an inpatient rehabilitation program or to an Intoxicated Driver Resource Center or other facility approved by the Director of the Division of Alcoholism in the Department of Health; provided that for a third or subsequent offense a person shall not serve a term of imprisonment at an Intoxicated Driver Resource Center as provided in subsection (f).

A person who has been convicted of a previous violation of this section need not be charged as a second or subsequent

offender in the complaint made against him in order to render him liable to the punishment imposed by this section on a second or subsequent offender, but if the second offense occurs more than 10 years after the first offense, the court shall treat the second conviction as a first offense for sentencing purposes and if a third offense occurs more than 10 years after the second offense, the court shall treat the third conviction as a second offense for sentencing purposes.

(b) A person convicted under this section must satisfy the screening, evaluation, referral and program and fee requirements of the Division of Alcoholism's Bureau of Alcohol Countermeasures Intoxicated Driving Program Unit, and of the Intoxicated Driver Resource Center and a program of alcohol

education and highway safety, as prescribed by the Director of the Division of Motor Vehicles. The sentencing court shall inform the person convicted that failure to satisfy such requirements shall result in a mandatory two day term of imprisonment in a county jail and a driver license revocation or suspension and continuation of revocation or suspension until such requirements are satisfied, unless stayed by court order in accordance with Rule 7:8-2 of the N.J. Court Rules, 1969, or R.S. 39:5-22. Upon sentencing, the court shall forward to the Bureau of Alcohol Countermeasures <u>within the Intoxicated Driving Programs Unit</u> a copy of a person's conviction record. A fee of $80.00 shall be payable to the Alcohol education, Rehabilitation and Enforcement Fund established pursuant to section 3, P.L.

1983, c. 531 (C.26:28 2B-32) to support the Intoxicated Driving Programs Unit.

(c) Upon conviction of a violation of this section, the court shall collect forthwith the New Jersey driver's license or licenses of the person so convicted and forward such license or licenses to the Director of the Division of Motor Vehicles. The court shall inform the person convicted that if he is convicted of personally operating a motor vehicle during the period of license suspension imposed pursuant to subsection (a) of this section, he shall, upon conviction, be subject to the penalties established in R.S. 39:3-40. The person convicted shall be informed orally and in writing. A person shall be required to acknowledge receipt of that written notice in writing. Failure to receive a written notice or failure to acknowledge in

writing the receipt of a written notice shall not be a defense to a subsequent charge of a violation of R.S. 39:3-40. In the event that a person convicted under this section is the holder of any out-of-state driver's license, the court shall not collect the license but shall notify forthwith the director, who shall, in turn, notify appropriate officials in the licensing jurisdiction. The court shall, however, revoke the nonresident's driving privilege to operate a motor vehicle in this State, in accordance with this section. Upon conviction of a violation of this section, the court shall notify the person convicted, orally and in writing, of the penalties for a second, third or subsequent violation of this section. A person shall be required to acknowledge receipt of that written notice in writing.

Failure to receive a written notice or failure to acknowledge in writing the receipt of a written notice shall not be a defense to a subsequent charge of a violation of this section.

(d) The Director of the Division of Motor Vehicles shall promulgate rules and regulations pursuant to the "Administrative Procedure Act," P.L. 1968, c. 410 (C.52:14B-1 et eq.) in order to establish a program of alcohol education and highway safety, as prescribed by this Act.

(e) Any person accused of a violation of this section who is liable to punishment imposed by this section as a second or subsequent offender shall be entitled to the same rights of discovery as allowed defendants pursuant to the Rules Governing Criminal Practice, as set forth in the Rules Governing the Courts of the State of

New Jersey.

(f) The counties, in cooperation with the Division of Alcoholism and the Division of Motor Vehicles, but subject to the approval of the Division of Alcoholism, shall designate and establish on a county or regional basis Intoxicated Driver Resource Centers. These centers shall have the capability of serving as community treatment referral centers and as court monitors of a person's compliance with the ordered treatment, service alternative or community service. All centers established pursuant to this subsection shall be administered by a certified alcoholism counsellor or other professional with a minimum of five years' experience in treatment of alcoholism. All centers shall be required to develop individualized

treatment plans for all persons attending the centers; provided that the duration of any ordered treatment or referral shall not exceed one year. It shall be the center's responsibility to establish networks with the community alcohol education, treatment and rehabilitation resources and to receive monthly reports from the referral agencies regarding a person's participation and compliance with the program. Nothing in this subsection shall bar these centers from developing their own education and treatment programs; provided that they are approved by the Division of Alcoholism.

Upon a person's failure to report to the initial screening or any subsequent ordered referral, the Intoxicated Driver Resource Center shall promptly notify the sentencing court of the person's failure to

comply.

Required detention periods at the Intoxicated Driver Resource Centers shall be determined according to the individual treatment classification assigned by the Bureau of Alcohol Countermeasures. Upon attendance at an Intoxicated Driver Resource Center, a person shall be assessed a per diem charge of $50.00 for the first offender <u>program or a per diem fee of $75.00 for the second offender program, as appropriate</u>.

The centers shall conduct a program of alcohol education and highway safety, as prescribed by the Director of the Division of Motor Vehicles.

The Director of the Division of Alcoholism shall adopt rules and

regulations pursuant to the "Administrative Procedure Act", P.L. 1988, c. 410 (C.52:14B-1 et seq.), in order to effectuate the purpose of this subsection.

Amended by L.1977, c.29, 1; L.1981, c.47, 1, eff. Feb. 25, 1981; L.1981, c.537, 1; L.1982, c.53, 2, eff. July 1, 1982; L.1982, c. 58, 1, eff. July 6, 1982; L.1983, c. 90, 2, eff. March 11, 1983; L.1983, c. 129, 1, eff. April 7, 1983; L.1983, c. 444, 1; L.1984, c. 243, 1, eff. Jan. 2, 1985; L.1986, c. 126, 1, eff. Oct. 9, 1986.

1 Rule 39:1-1 et seq.

Assembly Judiciary, Law, Public Safety and Defense Committee Statement

Senate, No. 1833--L.1983, c.129

The purpose of this bill in its substitute form is to amend the drunk driving statutes so that New Jersey will

meet the basic requirements and some of the supplemental requirements of a federal law that provides federal incentive grants to states with stringent drunk driving laws.

By meeting the initial minimum requirements of the federal law, New Jersey could qualify for a basic grant of $720,000.00 per year for three years, to be used to implement and enforce programs to reduce traffic safety problems caused by persons who drive while intoxicated.

The bill makes changes to New Jersey's drunk driving laws, thereby bringing them into conformance with the requirements for a basic federal grant. The bill, in its substitute form, requires that a person whose blood alcohol concentration is 0.10%

or greater be considered guilty of driving while intoxicated. Current law merely creates a presumption that such a person was under the influence of intoxicating liquor. The Attorney General's Office has proposed the language incorporated in the substitute.

Other requirements for a basic grant are already covered by current law. These include prompt license suspensions of at least 90 days for a first offender and at least one year for a repeat offender, and increased efforts to enforce alcohol-related traffic laws.

If New Jersey's laws meet some or all of certain additional requirements, the State can qualify for a grant of up to $480,000.00 per year for three years, in

addition to the basic grant.

New Jersey already fulfills two other requirements for a supplemental grant: a statewide record keeping system, and rehabilitation and treatment programs for persons convicted of driving while intoxicated.

One requirement for a supplemental grant which was just recently met by New Jersey is the establishment of 21 years of age as the legal age for purchasing and consuming alcoholic beverages.

APPENDIX B

OPINIONS BELOW

OPINION OF THE TRIAL COURT

MUNICIPAL COURT

MANALAPAN TOWNSHIP

120 Route 522 & Taylors Mills Road

MANALAPAN, NEW JERSEY 07726

September 8, 1988

Thomas E. Doig, Jr., Esq.
106 Abbington Dr.
Twin Rivers Town Center
East Windsor, N. J. 08520

Re: State vs. Bertola
Summons #69918 and 69920

Dear Mr. Doig;

The Court agreed to, and in fact conducted a hearing based upon Defendant's argument that the breathalyzer machine, functioning on the basis of a 2100 to 1 ratio, could not yield an accurate breath result in all cases; since not all individuals will yield

a breath sample commensurate with that 2100 to 1 ratio.

Expert testimony was elicited from Dr. John Brick on the part of the Defendant, and from Dr. Richard Saferstein on the part of the State.

Interesting and informative data was admitted; Defense counsel utilizing charts and tables taken from publications cited by the State's own expert.

The Court concludes that in fact, the 2100 to 1 ratio is not applicable to all people of both sexes, different weights, varied emotional stability, and the like. In addition, it is more likely that a 2300 to 1 ratio would be more prevalent to most of the population - but again, not all.

The Court is satisfied that a significant segment of the population, for one reason or another, does not fall within the "2100 to 1" ratio.

However, it is equally clear that in the Court's view, it is entirely the burden of the Defendant to demonstrate that he (not merely some segment of the population) has, or at least at the time of testing, had a ratio other than 2100 to 1. The Court is not persuaded by the evidence, that this was the case.

The results stand as admitted at .12 BAC. Defendant is found guilty of driving under the influence.

Sentencing on September 20, 1988, 9:30 AM.

Very truly yours,

Leslie B. Tinkler, JMC

ORAL OPINION OF JUDGE RICCIARDI

OF THE MONMOUTH COUNTY COURT

ON TRIAL DE NOVO

THE COURT: He testified the defendant swayed when he stood still and also when he walked. His face was observed to be flushed and his clothing was messed. And, of course, the officer came to the obvious conclusion that he was under the influence. This is the kind of testimony that we have in this case, notwithstanding the breathalyzer upon which this Court has to make a determination whether his mental faculties and physical coordination were affected in a deleterious way by the consumption of alcohol. And I'm satisfied beyond a reasonable doubt that this is so. Notwithstanding the breathalyzer, that he was under the influence and in violation

of 39:4-50. Now, I come to that conclusion independent of it, but I've also stated that the reading to me is a reliable reading. And the attack is on a question of reliability which is rejected by this Court. Now, I want to also indicate one other thing to Mr. Doig. That I am willing to look again at this transcript and once again review this particular case in the event that he is wrong about what his information is concerning Judge Dreier's decision. If Judge Dreier's decision is one that supports Judge Haines, then I will entertain an application by you to once again look at this matter. Because I may be looking at it in a different light at that particular time. I may not be. So I order that you will have that opportunity. I don't want to hold on a decision on this because God knows when the

Appellate Division is going to decide something. That's the decision I'm going to make. I will not stay the imposition of the penalties for that decision.

FIRST CERTIFICATION APPLICATION

SUPREME COURT OF NEW JERSEY
M-814/815 September Term 1988
29,818

STATE OF NEW JERSEY,

Plaintiff-Respondent,

vs.

DONALD D. BERTOLA,

Defendant-Movant.

This matter having been duly presented to the Court, it is ORDERED that the motion for direct certification (M-814) is denied; and it is further

ORDERED that the motion for consolidation with State vs. Downie (M-815) is dismissed as moot.

WITNESS, The Honorable Robert N. Wilentz, Chief Justice, Trenton, on this 8th day of March, 1989.

OPINION OF THE APPELLATE DIVISION

NOT FOR PUBLICATION WITHOUT THE

APPROVAL OF THE COMMITTEE ON OPINIONS

SUPERIOR COURT OF NEW JERSEY
APPELLATE DIVISION
A-1621-88T1

STATE OF NEW JERSEY,

Plaintiff-Respondent,

v.

DONALD D. BERTOLA,

Defendant-Appellant.

Submitted October 31, 1989
Decided December 4, 1989

Before Judges R.S. Cohen
and Brochin.

On appeal from the Superior Court, Law Division, Monmouth County.

Thomas E. Doig, Jr. attorney for appellant.

John Kaye, Monmouth County Prosecutor, as attorney for respondent (Mark P. Stalford, Assistant Prosecutor, of counsel, John A. Boese, Assistant Prosecutor, on the letter brief).

PER CURIAM

Defendant was convicted of driving while intoxicated. In the Municipal Court, the focus of the defense was the claimed unreliability of the breathalyzer. The judge concluded from the evidence before him that the breathalyzer was unreliable for reasons consistent with Judge Haines' conclusions in State v. McGinley, 229 N. J. Super. 191 (Law Div. 1988). The judge further concluded, however, that defendant failed to satisfy his burden to show that he fell on the wrong side of the average

2100-to-1 blood-breath ratio.

On appeal to the Law Division, Judge Ricciardi voiced some reservations about the accuracy of the breathalyzer but ruled that he was precluded by Romano v. Kimmelman, 96 N.J. 66 (1984), and State v. Downie, 220 N.J. Super. 207 (App. Div. 1988), from dealing with the matter. Judge Ricciardi examined the other evidence in the case and concluded from it that defendant was guilty of driving while intoxicated beyond a reasonable doubt. We agree and therefore affirm.

Officer William Rhett testified that he was on patrol at about midnight when he saw defendant's vehicle traveling the same road in the opposite direction "on the shoulder line." Rhett turned his car around and followed defendant. Defendant crossed the shoulder line five times and

the center line four times, each time with a quarter of the vehicle. Rhett stopped defendant and approached his vehicle. Defendant had a hard time producing credentials, smelled of alcoholic beverage and his eyes were bloodshot.

Defendant got out of his vehicle and slightly swayed from side to side as he walked to the front. He failed to get past "H" three times when requested to recite the alphabet. Defendant declined to try the one-leg balance test because he said he was too nervous. He performed quite badly on the finger-to-nose test and heel-to-toe line-walking. Rhett then placed defendant under arrest.

Back at headquarters, psychophysical tests were again administered. Defendant could not recite the alphabet past "H." He swayed standing with head back and eyes

closed. Heel-to-toe walking was again not done and, on the finger-to-nose test, defendant could not perform according to directions. Defendant's speech was low and slow. His attitude was carefree and cooperative. His clothes were mussed, eyes bloodshot, hand movements slow and face flushed. He said he had a couple of beers. Officer Rhett concluded that defendant was intoxicated.

Defendant denied very little of the Rhett testimony. He said he had four beers at a tavern and headed home. He said his front universal joint was bad, so he drove slowly and "was hugging the white line." A couple of days later he replaced the universal joints. Defendant admitted having trouble finding his credentials, and admitted he could not recite the alphabet even though he had graduated from high

school. With respect to the physical tests, defendant was asked:

> And you don't dispute what the officer testified to about the results?

He replied:

> Well, yeah, you know, I just couldn't function like now, you know.

Even without the opportunity to see and hear the witnesses, we agree with Judge Ricciardi that the evidence other than the breathalyzer readings compels the conclusion beyond a reasonable doubt that defendant was driving while intoxicated. We therefore need not deal with the reliability of those readings.

Defendant makes other arguments before us. They all relate to the "per-se" portion of N.J.S.A. 39:4-50(a). Because defendant's conviction in the Law

Division did not depend on the "per-se" portion, the arguments are moot.

Affirmed.

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OPINION OF THE NEW JERSEY SUPREME COURT

SUPREME COURT OF NEW JERSEY
C-553 September Term 1989
31,304

STATE OF NEW JERSEY,
Plaintiff-Respondent,

vs.

DONALD D. BERTOLA,

Defendant-Petitioner.

To the Appellate Division, Superior Court,

A petition for certification of the judgment in A-1621-88T1 having been submitted to this Court, and the Court having considered the same;

It is ORDERED that the petition for certification is denied, with costs.

WITNESS, the Honorable Robert N. Wilentz, Chief Justice, at Trenton, this 6th day of February, 1990.

APPENDIX C

FEDERAL ISSUES RAISED BELOW

EXCERPT FROM DEFENDANT'S BRIEF BELOW

STATEMENT OF ERRORS COMPLAINED OF

1. The credible testimony of the police officer against the appellant-petitioner, does not substantiate a case of driving while intoxicated, based on the physical evidence in this case.

2. The Appellate Division failed to reach the issue of the proper working of the breathalyzer in light of the arguments under 2100:1 blood/breath ratio.

3. The trial court failed to admit into evidence the hematocrit test results which would have directly affected the breathalyzer reading.

ARGUMENT AND COMMENTS ON THE APPELLATE DIVISION OPINION

A. THE APPELLANT-PETITIONER'S RIGHT OF DUE PROCESS WAS NOT AFFORDED IN LIGHT OF THE FACT THAT THE PER SE APPLICATION OF THE BREATHALYZER BY THE STATUTE PREJUDICES THE JUDGE'S FINDINGS IN THE CASE BEFORE THE COURT BY CREATING AN IRREBUTTABLE PRESUMPTION.

The appellant-petitioner in the case before the court adopts the amicus curiae brief of the National Association of Trial Lawyers as set forth in State v. Downie, supra and sets out the applicable portion of the argument in full hereinbelow.

New Jersey statute, N.J. Stat. Ann. Sec. 39:4-50(a) reads, in part: "A person.....operates a motor vehicle

with a blood Alcohol Concentration of 0.10% or more of alcohol in the defendant's blood.....is guilty of violating this section." This per se violation consists of only two elements as required under the statute; (1) operation of a motor vehicle and (2) a BAC of .10% or more.

The first element, "operation", has been broadly construed. The courts of this state have held that even unsuccessful attempts to operate a vehicle in a public place is included, State v. Stiene, 203 N.J. Super. 275, 496 A.2d 738 (1985). In State v. Mulchay, 107 N.J. 467, 527 A.2d 368 (1987), this court held that an individual falls within the category of "operating" a vehicle if he/she is observed staggering to the vehicle (a car, here) and is stopped while attempting to put the key into the ignition. In 1987 this court went

even further. In State v. Wright, 107 N.J. 448, 527 A.2d 379 (1987), this could held that the State was only required to show that the arresting police officer had probable cause to believe that the defendant had been operating a vehicle while under the influence.

The second element is the key to this constitutional challenge. As counsel for Defendants-Respondents pointed out below: "[T]he statute which has added the provisions to the per se in April 7th of 1983, creates two sections or violations of the 39:4-50 section of the statute. One is what's commonly called driving under the influence and the other is what's commonly called driving with a per se one zero reading on the breathalyzer machine or any

machine which would be properly approved.....

> The second issue which I obviously would want to be in a position to present to the Court is the issue with relationship to the reliability of the machine. I would submit to the Court that as a result of our investigation the machine is probably as valid as some machine that you stick into Resorts or the Trump Plaza. Your (sic) probably have about as much capacity to be able to come back with a true reflection as to what your alcohol intake had been and what your condition was at the time of operation as you would by pulling four sevens on the International Machines currently held in Atlantic City.....The difficulty with the per se is that the per se doesn't convict average people it convicts everybody." New Jersey v. Downie, Transcript of Recorded Proceeding, Asbury Park Municipal Court, March 30, 1988.

As counsel below noted there are several constitutional questions which have been implicated in this .10 per se requirement. These include the reliability

or accuracy of the instrumentation or operators thereof, vagueness, presumptions, strict liability, self incrimination, and having one's "day in court" with the opportunity to testify on one's behalf and be confronted with the witnesses against him. Cf., Rock v. Arkansas, --U. S.--, 107 S. Ct. 989 (1987).

In Romano v. Kimmelman, 96 N.J. 66, 474 A.2d 1 (1984) individuals charged with operating vehicles while under the influence brought action seeking injunctions against use of the breathalyzer test results as evidence in drunk driving proceedings. This court judicially recognized in general terms the breathalyzer as an accurate scientific technique generally accepted in the scientific community. However, this court

made it quite clear that a per se rule could do violence to due process as well as interfere with a defendant's right to a fair trial which, after all, is the hallmark of the Sixth Amendment to the United States Constitution. Baldwin v. New York, 399 U.S. 66, 90 S.Ct. 1886, 26 L.Ed.2d 437 (1970). This conclusion is axiomatic. Indeed, to deny any "automatic congruence" between the safeguards of procedural due process in criminal or quasi-criminal proceedings implicates fundamental fairness in that a literal reading of the standard of proof suggested in New Jersey statute 39:4-50(a) would result in the rejection of adequate protection because the legislation at issue jeopardizes the entire proceedings. In re Winship, 397 U.S. 358, 374-375 (1970) (Harlan, J., concurring). To insure

fairness the state must prove beyond a reasonable doubt all facts necessary to constitute the criminal, or quasi-criminal activity., To do otherwise would permit the state to escape the reasonable doubt standard and hide under the per se rule which denies the defendant his/her day in court. The concept is not an easy one to grasp, yet due process demands no less than fairness and an opportunity to be heard. For example, in United States v. Smith, 776 F.2d 892 (10th Cir. 1985), the court found that where the "intoxilyzer" breath test results were admitted as evidence in the defendant's conviction for involuntary manslaughter in a traffic accident, the trial court did not abuse its discretion in so admitting the evidence. The court held that the "intoxilyzer" technique of testing is generally accepted in the scientific

community and thus meets the classic admissibility test for scientific evidence given in Frye v. U.S., 293 Fed. 1013 (D.C. Cir. 1923)." In Smith, however, the defendant was allowed to challenge all evidence at the trial level. The court of appeals only dealt with the question of admissibility of the evidence.

In State v. Boehmer, 613 P.2d 916 (Ct. App. Haw. 1980), the Hawaiian Court of Appeals recognized a 0.0165% error factor in the breathalyzer test. That court, in a case involving a reading of .11% argued that "the inherent margin of error could put the defendant's actual BAC below the level necessary for the presumption to arise." The Nebraska courts recognized the same factor of fairness in State v. Bjornsen, 271 N.W.2d. 839 (Nebr. 1978).

The State of New Jersey might well argue that there is a presumption element in the statute that does not do violence to the due process fairness component, and that the consequences of the determination of content is not sufficiently punitive to warrant imposing all criminal safeguards at the adjudicatory stage.

THE PRESUMPTIONS ISSUES

In response it is important to note that for constitutional purposes, there are three types of presumptions:

(1) Conclusive or mandatory. It is submitted that these are absolutely unconstitutional in the criminal or quasi-criminal context because they allow the state to rely on a rule of law to prove guilt beyond a reasonable doubt. Sandstrom

v. Montana, 99 S.Ct. 2450, 442 U.S. 510, 61 L.Ed.2d 39 (1979).

(2) Permissive. This concept of a presumption within the criminal or quasi-criminal context makes inferences and places no burden on the defendant. County Court of Ulster County v. Allen, 99 S.Ct. 2213, 442 U.S. 140, 60 L.Ed. 2d 777 (1979). These have been held constitutional because they are entirely within the discretion of the factfinder and should have no effect on the burden of proof.

(3) Rebuttable. Under the case law there are two types of rebuttable presumptions:

(a) Burden of proof shifting; these are unconstitutional in criminal cases because they allow the state to shift the burden of proof to the defendant. Sandstrom v. Montana, supra.

(b) Burden of production shifting; these are found to be unconstitutional. They require that due process standards of fairness be met and that the defendant be permitted to introduce evidence to rebut the State's case.

A prosecution under Sec. 39:4-50(a), N.J. Stat. Ann. is a quasi-criminal proceeding and, therefore, requires proof of guilt beyond a reasonable doubt. In State v. Johnson, 42 N.J. 146, 199 A.2d 809 (1964), where the defendant was on trial for operating a motor vehicle while under the influence of alcohol, and State v. Emery, 27 N.J. 348, 142 A.2d 874 (1958), where the defendant was tried for driving while intoxicated and for conspiring to obstruct justice by falsely stating that he had been the driver of the automobile,

the court required more than just breathalyzer test results. The cases could not be rested entirely on the test result. This was more recently paralleled in Barnes v. People, 735 P.2d 869 (Colo.) 1987) where the Supreme Court of Colorado held that driving under the influence statutes authorized only permissive inference rather than mandatory presumption that the defendant was under the influence. The court in Barnes further held that a mandatory presumption created by the jury instructions was not cured by contradictory statements in other instructions. However, it must be noted that although there is at present no entitlement to an indictment or a jury trial in the proceedings in question, State v. Roth, 154 N.J. Super. 363, 381 A.2d 193 (1983), and State v. Ferretti, 189 N.J. Super. 578, 461 A.2d

193 (1983), the issue is presently before the United States Supreme Court; see Blanton v. City of North Las Vegas, 87-1437 certiorari granted, June 20, 1988, __ U.S. __, 108 S.Ct. 2843 (1988). This is significant to the present case because the issue before the United States Supreme Court in Blanton is:

Where the misdemeanor offense of driving a vehicle while intoxicated under state law is a crime to which the right to jury trial applies, New Jersey stands in the distinct minority in denying jury trials with the context of the present fact situation.

Within this setting emerges In re Winship, 397 U.S. 358, 364 (1970), in which the United States Supreme Court held that under the Due Process Clause of the 14th Amendment, criminal convictions must be

based on nothing less than proof of guilt "beyond a reasonable doubt." Specifically, this entails proof beyond a reasonable doubt of each element of the offense. This holding was reiterated in Patterson v. New York, 432 U.S. 197, 217 (1977). In addition to holding that every element needed proof beyond a reasonable doubt, the Winship court held that the state could not shift the burden of that proof. In this State's rush to eliminate the reasonable doubt component from it's DWI trials it would be well to pause and examine not only the federal case law reflecting constitutionally held values of long standing, but also the Uniform Chemical Test for Intoxication Act, Sec. 7, where it is recognized that if the chemical analysis demonstrates that the amount of weight of alcohol is less than 0.15 percent

by weight, such evidence is to be considered relevant but is not to be given prima facie effect in indicating whether the person was or was not under the influence of intoxicating liquor. See also, 16 A.L.R. 2d 748 and 7 Am. Jr.2d, Automobiles and Highway Traffic 334.

Furthermore, the New Jersey criminal code states that "[n]o person may be convicted of an offense unless each element of such offense is proved beyond a reasonable doubt." (N.J. Stat. Ann. Sec. 2C:1-13(a)) while N.J. Stat. Ann. Sec. 2C:1-14h(a) defined each "element of the offense" as "such conduct or...attendant circumstances...as included...in the definition of the offense.' In this State, a presumption may not be accorded mandatory effect. This was upheld in two recent cases having to do with unlawful possession

of weapons, State v. Ingram, 98 N.J., 489, 497, 488 A.2d 545, 549 (185), where the defendant was convicted of possessing a handgun without a permit, and State v. McCandless, 190 N.J. Super, 75, 79, 461 A.2d 1205, 1207, (1983), where defendants were convicted of unlawful possession of an automatic pistol. This implies that the factfinder cannot be required, either by statute or by judicial instruction, to accept presumed facts as having been proved merely because the underlying facts giving rise thereto have been proved. State v. McCandless, supra at 81, 461 A.2d at 1208. Furthermore, this Court and the United States Supreme Court have declared that "the ultimate test of any [presumptive] device's constitutional validity remains constant: the device must not undermine the factfinder's responsibility at trial, based

on evidence adduced by the State, to find ultimate facts beyond a reasonable doubt." State v. Ingenito, 87 N.J. 204, 220, 432 A.2d 912, 920 (1981) quoting Ulster County v. Allen, 442 U.S. 140, 156 (1979).

In this state the breathalyzer is judicially noticed as a reliable and accurate mechanism to determine an individual's BAC, Romano v. Kimmelman, 96 N.J. 66, 89-91, 474 A.2d 1, 13-14 (1984). Therefore, in a per se case, the state seeks to use the reading of an individual's BAC at the time of testing to infer the BAC level at the time of operation. This must be done because the statute implies that the BAC level which is of interest is the one the individual has while in the process of "operating" the vehicle. That is, the State is forced to infer an element of the crime. The constitutionality of this

presumption depends, among other things, on the degree to which the use of the presumption curtails the factfinder's freedom to assess the evidence independently. See Cf. generally Giannelli, The Admissibility of Laboratory Reports in Criminal Trials: The Reliability of Scientific Proof, 49 Ohio St. L. Jo. 671 (1988). Therefore, if the breathalyzer results are treated as conclusive proof of the defendant's BAC at the time of operation, it is clear that such a presumption violates due process by eliminating both the State's burden of proof and the factfinder's freedom to accept or reject the presumption. See arguments of Petitioner in Blanton v. City of North Las Vegas, supra. Thus a better reading and application of the per se statute in light of Winship necessitates

allowing the defendant to rebut under the Due Process Clause any and all statutory requirements, which is precisely what happened in State v. Lowther, 740 P.2d 1017 (Hawaii App. 1987) where the court held that legislative provisions to admit intoxilyzer results does not equate with sufficient evidence for conviction.

A defendant in a criminal or quasi-criminal proceeding has additional protection supported by the remaining pillars of constitutionally guaranteed rights. In Cf., Rock v. Arkansas, 483 U.S. 44, 107 S. Ct. 2704, 97 L.Ed. 2d 37 (1987), a recent case dealing with manslaughter, the United States Supreme Court held that an accused in a criminal case has a right to call in witnesses, including themselves, and to speak up in their defense in court. The Court found that anything less would be

arbitrary and therefore impermissible restriction upon a defendant's constitutional right to a fair trial. Id. The Court further held that the State's legitimate interest in barring unreliable evidence (in that case, co-defendants.....in the present situation, the defendant himself in response to the test result) does not extend to per se exclusions that may otherwise be reliable in an individual case. The United States Supreme Court, in Washington v. State of Texas, 388 U.S. 14, 87 S.Ct. 1920, 18 L.Ed. 2d 109 (1967), held that defendants have a Sixth Amendment right to be confronted with the witnesses against them and that this guarantee applies to state criminal proceedings through the Fourteenth Amendment right to be confronted with the witnesses against

them and that this guarantee applies to state criminal proceedings through the Fourteenth Amendment, Pointer v. Texas, 380 U.S. 400, 85 S.Ct. 1065, 13 L.Ed. 2d 923 (1965). In the case at bar, being a per se violation based on the test results, the only "witness" that stands accusing the defendant are the breathalyzer results. It is submitted that under Rock, the defendant must be given the opportunity to confront his accusers in his own defense. In In re Oliver, 333 U.S. 257, 68 S.Ct. 499, 507 (1948), the Supreme Court held that a person's right to reasonable notice of a charge against him, and an opportunity to be heard in his defense - as well as a right to his day in court, are basic in our constitutional system of jurisprudence; "and these rights include, as a minimum, a right to examine the witnesses against him,

to offer testimony, and to be presented by counsel." We submit that no less can be expected in the case at bar.

APPENDIX D

SCIENTIFIC FINDINGS OF EVIDENTIARY HEARING

SUPREME COURT OF NEW JERSEY
A-167 SEPTEMBER TERM 1988

STATE OF NEW JERSEY,

Plaintiff-Respondent,

v.

ARCHIE DOWNIE,

Defendant-Appellant.

ON TEMPORARY
REMAND TO THE
SUPERIOR COURT,
LAW DIVISION,
MONMOUTH COUNTY

STATE OF NEW JERSEY,

Plaintiff-Respondent,

v.

DANIEL MATTHEWS,
Defendant-Appellant.

STATE OF NEW JERSEY,

Plaintiff-Respondent,

v.

MARTIN J. MAROTTA,

Defendant-Appellant.

STATE OF NEW JERSEY

Plaintiff-Respondent,

v.

CHARLES F. CARROLL,

Defendant-Appellant.

Boris Moczula and John M. Fahy, Deputy Attorney General for the State, Peter N. Perretti, Jr., Attorney General.

Mark P. Stalford, Assistant County Prosecutor for John A. Kaye, Monmouth County Prosecutor

Francis X. Moore for defendants, Downie, Matthews, Marotta and Carroll

E. John Wherry, Jr.; amicus curiae on behalf of the National Association of Criminal Defense Lawyers

McGANN, JR., J.S.C.

INTRODUCTION

This matter was remanded to the Law Division for the purpose of conducting a hearing in the matters which have been consolidated; for which certification has been granted and on which argument on appeal is pending. In accordance with the remand; at the hearing "the four defendants and the State shall present evidence to develop a factual record on the allegation that partition-ratio variability compromises the scientific reliability of breathalyzer-test results, and which hearing shall address the following issues: (i) the nature and extent of the variability of the partition ratio, and (ii) the effect, if any, of such variability of the partition ratio on the reliability of breathalyzer-test results."

Pursuant to the remand and with the cooperation of all counsel, expedited hearings were held on April 27, May 1, May 15, May 17, May 19, May 22, May 24, May 30, May 31, June 1, 1989. Ten witnesses were called. The particular expertise of each was not subject to challenge. Complete transcripts of their testimony have been produced and made available to all counsel. Originals of those transcripts are submitted to the Court along with these findings. Various exhibits were received in evidence. A set of those exhibits likewise accompanies these findings.

For ease in review I have extracted what I deem to be the essential facts and opinions expressed by each of the witnesses, and have commented, where deemed appropriate, on the weight and value which I placed on those opinions. In what

appears to be a fairly logical order, those synopsized findings along with the curriculum vitae of each witness have been appended hereto under tabs A through J. The order chosen is Dr. Borkenstein, Dr. Hlastala, Dr. Payne, Dr. Jones, Dr. Dubowski, Mr. Shajani, Mr. Lucas, Sgt. Gullberg, Mr. Harding and Dr. Simpson.

Dr. Borkenstein is the inventor of the Breathalyzer and gives an historic view of the matters to be considered on the remand. Dr. Hlastala gave informative information on the physiology of human lungs and on the readings of alcohol in the breath. Drs. Jones and Dubowski have been leaders in experimental blood-breath studies and on the so-called partition ratio: Dr. Payne did some significant early work in the field. Mr. Shajani, Mr. Lucas and Sgt. Gullberg have a perspective

on both laboratory studies and field work with Breathalyzers. Mr. Harding and Dr. Simpson did no experimental or field work but simply drew statistical conclusions based on the published works of others.

The references in the findings to the work or views of one or another of these experts is then, to the detailed findings which I made on each and not to page and line in their testimony, for that is quite difficult to do. In order to extract a particular statement or conclusion one must digest many pages of testimony and of legal colloquy. In some cases a statement originally made in a fragmentary fashion becomes clear only much later on in the questioning.

THE PROBLEM

Scientists have known for a long

time that it is the presence of alcohol[1] in the brain that causes disfunction there, leading to automobile accidents resulting from that cerebral disfunction. The medium by which alcohol gets to the brain is the blood. If it were possible to directly sample blood from the brain, the amount of alcohol it contains can be easily and very accurately read. But it is not.

Alcohol comes into the human body by being imbibed and deposited in the stomach and passes to the small intestines. It is absorbed into the blood partly in the stomach and principally from the small intestines. Absorption can take place quite quickly or more slowly depending on the contents of the stomach and the strength and quantity of the alcohol

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[4] "alcohol" throughout means ethyl (grain) alcohol (ethanol).

ingested at a particular time. The alcohol laden blood then passes to the liver and circulates through all parts of the body where it is found in all water in the body. Freshly formed urine, saliva or other body fluids receive the alcohol in proportions to their water content. Readings of amount of alcohol in those fluids can be and have been made. Blood from many parts of the body, taken after a certain time for absorption, will reflect the alcohol present in the body.

When it comes to other than laboratory testing, urine specimens and saliva samples are not particularly accurate and are difficult to obtain, especially on a repeat basis over a short period of time. They are unsatisfactory for field work. The taking of blood samples does pose some inconveniences to

the person charged but not of great magnitude. With blood the first question must be - from what part of the body was the sample taken? The amount of alcohol present in the blood will vary between, for example, venous blood from the cubital (elbow) vein in the arm or from the fingertips "capillary" blood or from the arteries "arterial" blood. Even arterial blood will give different readings on the amount of alcohol present depending on the situs of the blood sample.

Arterial blood passes through the lungs into the heart and from there is sent to the brain through the carotid arteries. On leaving the brain it travels through the venous system in the body back through the liver and continues through the heart where it is again pumped into the arterial system and lungs.

Returning to the problem of determining how much alcohol there is in the brain, the immediate source of blood supply to the brain is through the carotid arteries. If one could simply and safely draw a blood sample from one of those arteries and measure the alcohol content in it, it would be an excellent measure of alcohol in the brain. Such a procedure is neither simple nor safe.

Blood can be taken from other sites - commonly the finger tips or the cubital vein. Both sites are much more remote from the brain and do not give a precise indication of what is going on in the brain at the time they are taken. The alcohol content of the blood is constantly changing as it circulates through the body. It is being eliminated through the various parts of the circulatory system and is

picking up more alcohol from the small intestines so long as some remains in the stomach.

For multiple tests upon which accuracy of blood readings depends, the fingertip blood or capillary blood is not satisfactory. The size of the sample is small and there is the immediate danger of exposure to the air and evaporation of some of the alcohol it contains, since alcohol is a very volatile substance. Venous blood is very satisfactory as to its quantity, however, as will be noted later herein, it does not give an accurate reflection of the alcohol in the brain - especially during the time alcohol is still being absorbed through the stomach and small intestines into the blood. All of the foregoing has been known to scientists for a long time.

Scientists also have long known that as the blood passed along the alveolar (honey-comb-like) cells in the lungs: some of the volatile alcohol in the blood will escape into the breath chambers on the other side of the thin membrane which makes up those cells. This transfer of alcohol from blood to breath in the lungs proceeds, in general, at a fairly predictable rate for most people, but, as with everything else about humans, in probably no two is that rate exactly the same.

Since arterial blood passing through the lungs is the next most reachable spot for testing prior to going through the carotid arteries to the brain, it was obvious that if some accurate form of detecting the amount of alcohol in the breath could be developed and that breath-alcohol related to an assumed amount

of alcohol in the arterial blood which produced it, a prediction could be made as to how much alcohol must be present in the blood flowing through the brain. Hence the Breathalyzer and all other breath-alcohol analyzing instruments.

There is no problem at all with the technology for measuring the amount of alcohol present in a given sample of breath or vapor. The Breathalyzer is but one of a number of scientifically proven instruments. Given proper working order and a trained operator it can read alcohol in breath magnificently well and with complete scientific acceptability. All experts agree.

The sticking point is relating that breath-alcohol reading or concentration (BrAC) into a blood alcohol concentration (BAC). That depends on what

goes on in the individual's lungs.

It is well to pause here to review New Jersey law on breath testing for it relates to the problem posed by known differences in the rate at which alcohol partly vaporizes from the blood into the breath in the lungs.

The following are the provisions of New Jersey statutory law regarding prosecutions for "drunk driving" or "DWI" pertinent to the fact-finding function of this court.

> N.J.S.A. 39:4-50(a). "A person who....operates a motor vehicle with a blood alcohol concentration of 0.10% or more by weight of alcohol in the defendant's blood ...." is guilty,' and subject to various penalties. N.J.S.A. 39:4-50.2(a). "Any person who operates a motor vehicle on any public road.... shall be deemed to have given his consent to the taking of samples of his breath for the purpose of making chemical tests to determine the content of alcohol in his blood; provided, however, that the taking of samples is

made in accordance with the provisions of this act....

(b) A record of the taking of any such sample, disclosing the date and time thereof, as well as the result of any chemical test, shall be made and a copy thereof upon his request, shall be furnished or made available to the person so tested. (c) In addition to the samples taken and tests made at the direction of a police officer hereunder, the person tested shall be permitted to have such samples taken and chemical tests of his breath, urine or blood made by a person or physician of his own selection."....

N.J.S.A. 39:4-50.3 provides:

Chemical analyses of the arrested persons's breath, to be considered valid under the provisions of this act, shall have been performed according to methods approved by the Attorney General, and by a person certified for this purpose by the Attorney General. The Attorney General is authorized to approve satisfactory techniques or methods, to ascertain the qualifications and competence of individuals to conduct such analyses, and to make certifications of such individuals, which certifications

> shall be subject to termination or revocation at the discretion of the Attorney General. The Attorney General shall prescribe a uniform form for reports of such chemical analysis of breath to be used by law enforcement officers and others acting in accordance with the provisions of this act.

Appropriate regulations regarding chemical breath testing have been adopted by the Attorney General and published in the New Jersey Administrative Code. N.J.A.C. 13:15-1.1 et. seq. They include specifications for training and qualification of Breath Test Operators, Coordinator/ Instructors and a list of approved test instruments and requirements for periodic inspection of the same. Among them are the Breathalyzer Models 900 and 900A.

As Dr. Borkenstein noted, those such as Harger and he and others were

trying to determine at what assumed ratio (of partition i.e. transfer, of alcohol from blood to breath in the lungs) should their machine be set or calibrated so that when an individual blew alveolar breath into the test chamber the pointing of the needle on the scale would give accurate results. It is significant in this historical development that in the early 1950's when the Breathalyzer was being designed it was not intended as a "per se" instrument - as a judgment device that would give definitive proof of being - under the influence. Rather was it meant to be the "back-up" evidence to the traditional testimony of manner of observed driving; physical observations on the scene - reddened eyes, slurred speech, staggering and the like response to physical tests at headquarters-finger -to-nose, walking the

line, standing erect with eyes closed and the like. It was intended also to supplement answers to questions on the uniform police report which form was very carefully developed. If there were lingering doubts whether the person was "driving under the influence", the machine reading would provide the backup.

But the first question was, "At what assumed ratio of blood to breath partition of alcohol shall we calibrate the machine?" There is no direct method for measuring an individual's lung partition ratio. The only way it can be arrived at is by scientific experimentation and calculation. Based on experiments which gave them an educated hunch, scientists generally believed in the 1950's that a probable average ratio for all adults would be about 2000 to 1; that is for every 2000

parts of alcohol in the blood one part would be released into the alveolar breath in the lungs. Not all agreed, however, and so the National Safety Council anxious to press forward with breath testing for drunk drivers gathered the leading experimenters together and they agreed, in 1952, on a convention which read:

> The basic principle governing the operation of the three presently used breath alcohol methods (the Drunkometer, the Intoximeter and Alcometer) is the constant ratio existing between the concentration of alcohol in the alveolar air and the blood. Available information indicates that this alveolar air-blood ratio is approximately 1:2100. However, since each method involves different procedures, different empirical factors are involved in the calculation of concentrations of alcohol in the blood in each of the methods.
>
> It is the opinion of the subcommittee that the tests made on the Alcometer, the Intoximeter and the Drunkometer, if conducted in the manner prescribed by the authors of the respective

> methods, will give comparable and reliable results for estimating the concentration of alcohol in the blood.

And the 2100 to 1 ratio came into existence. It has been the ratio with which all breath reading instruments have been calibrated from then to the present - all over the world. In 1972 an Ad Hoc Committee on the Blood-Breath Alcohol Relationship comprised of leading men in the field from this country (including Borkenstein and Dubowski) and from Europe met and agreed on the following statement:

> The basic principle governing the design of breath alcohol instruments is that a physiological relationship exists between the concentration of alcohol in expired alveolar air and in the blood.
>
> Available information indicates that 2.1 liters of expired alveolar air contain approximately the same quantity of alcohol as a milliliter of blood.

Continued use of this ratio in clinical and legal applications is warranted.

What does calibration mean ? The instrument must have a known standard to which it can compare an unknown sample. The instrument does not say "this is alcohol in human breath." It simply reads the alcohol content of a vapor - any vapor - which is introduced into it in a specific volume.

Henry's Law in physical chemistry provides that when a liquid containing a concentration of alcohol (or any volatile substance) is in contact with air space in a closed container and at a known temperature, a certain amount of the alcohol will escape into the air space above and become part of the vapor. The amount of the alcohol that does transfer will depend on the strength of the alcohol

concentration in the liquid at the given temperature. The higher the temperature the more alcohol will escape to the vapor (and less for a lower temperature). For a fixed temperature and a fixed concentration of alcohol in the liquid a state of equilibrium will be rapidly reached at which the amounts of alcohol in air and liquid are static. The amount of alcohol in the vapor is then measured by, for example, gas chromatography, as is the amount of alcohol in the liquid. Those are precise readings. If the alcohol in the liquid is divided by the alcohol in the vapor a ratio is set up, e.g. 2200 parts in liquid to 1 part in vapor. That is the true partition ratio for that concentration of alcohol at that temperature.

Sgt. Gullberg described quite clearly how a Simulator solution is

chemically prepared to calibrate the Breathalyzer. At 34° C a solution of .121 gr. of alcohol per 100 milliliters of water will give off alcohol to the vapor (read by the instrument) of .10 gr. per 210 liters of vapor. When the needle deflects the scale under it is adjusted to read .10 grams per 210 liters. Thereafter it will read .10 gr. per 210 liter when another vapor sample exactly the same is presented to it. This is precisely what the test ampule does in the operational procedure for the Breathalyzer. If the vapor sample has less alcohol it will read lower; if more alcohol, higher.

The machine can be calibrated in that way to assume that the vapor it reads has been produced from a 2300 to 1 partition sample (liquid to air) by subtracting a precise amount of alcohol

from the known solution and adjusting the scale upward to read .10 or to 1900 to 1 by adding alcohol and adjusting the scale downward to read .10.

Henry's Law as related to the lungs juxtaposes blood in the lungs for the liquid and alveolar breath in the lungs for vapor. Some amount of alcohol is given off from the blood to the breath. But the lungs are not the closed laboratory container with a solution of liquid and an air space above. They are much more complex. And that is why the actual partition ratio in the lungs cannot be measured; it can only be estimated by calculation.

Armed then with a Breathalyzer calibrated to assume that the breath sample it received would be from a source with a partition ratio of 2100 to 1, competent scientists have been conducting experiments

to see just how good the Breathalyzer results are when compared to blood samples taken from subjects at the same time breath samples are taken. In the early days Payne conducted such experiments. Jones and Dubowski have done an immense amount of similar work. To a lesser degree but in a very professional manner so have Shajani, Lucas and Gullberg. Their synopses should be read for an appreciation of their techniques and various scenarios posited in laboratory studies. In general a breath sample read by the Breathalyzer is taken at a particular time interval and a blood sample is at about the same time. The blood sample is read chemically or by gas chromatography to three decimal places, e.g. .117 gr. of alcohol per 100 milliliter of blood.The Breathalyzer reads out directly in gr. of alcohol per 210 liters

of breath. In doing so it can read to three decimal places as well. It can also be modified (as in New Jersey) to convert that breath reading to a presumed blood alcohol reading. All that takes is slipping under the needle reading a breath scale (factory model), a cardboard scale reading directly in assumed blood alcohol. (D44 Ev) This is simply a mechanical 1 to 2100 conversion of the breath reading into a blood reading (assumed). Where, for example, the needle pointed to .117 gr. per 210 liters of breath it will still be pointed there but the new scale will show a point between .10 and .12% of alcohol by weight in blood. It will be closer to .12 and can be visually estimated at .117 but in actual use the third decimal is "truncated" or dropped and the reading would be reported at .11.

The blood to breath ratio calculates out in this fashion:

BAC = Blood Alcohol Concentration
BrAC = Breath Alcohol Concentration

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With an instrument calibrated at 2100 to 1 it would be as follows for a .10% reading.

$$\text{BAC in } \frac{\text{gr. (alcohol)}}{\text{100 mil (blood)}} = \frac{.10 \text{ gr}}{100 \text{ ml}} = \text{10\% weight of alcohol in blood}$$

$$\text{BrAC in } \frac{\text{gr. (alcohol)}}{\text{210 liters (breath)}} = \frac{.10 \text{ gr}}{210 \text{ liters}} \text{ or } \frac{.10\text{g}}{210{,}000 \text{ ml.}}$$

$$\frac{\frac{.10}{100}}{\frac{.10}{210{,}000}} = \frac{.10}{100} \times \frac{210{,}000}{.10} = \frac{2100}{1}$$

Thus, the ratio is $\frac{\text{gr. (blood)}}{\text{gr. (breath)}} \times 2100$

If the blood reading is .02 and the breath is .04, the ratio would be 1050.

The blood reading determined is not a perfect determination. As with all analytical processes, even with more carefully controlled procedures, there will

be variations. See Borkenstein's and Jones' synopses for example. Therefore, when comparing breath alcohol to blood alcohol readings it cannot be assumed, if they do not correlate, that the blood reading is absolutely correct. One other very important fact to be kept in mind is that the blood sample is either venous (in most cases) or capillary (the early days in Sweden) blood - neither of which directly and precisely reflects the amount of alcohol in the arterial blood going to the brain.

These "paired" samples of breath and blood are taken from the subject over a period of time (up to 7 or 8 hours) at slated intervals (15 or 20 minutes).

The results then can be plotted in curves of blood alcohol readings and breath alcohol readings which will visually

demonstrate the mathematical differences between the two. For each "pair" a ratio can be calculated for that moment in time, for that individual, and a plotting of ratios can be achieved. The results of all of those pairs for all of the individuals can be plotted on a scattergram which will give a visual presentation of the various ratios at various times for all individuals tested. From the scattergram a "best fit" line can be constructed to determine what is the average ratio for all of those points.

In this fashion, over the years, all of the investigators agree that the average ratio for all individuals tested and which probably applies to the universe of adults is 2300 to 1 (rather than 2100 to 1 which was the starting point back in 1952).

The upshot is that the Breathalyzer does not read a breath alcohol converted to blood alcohol as accurately as it could. It would do so more accurately if it were calibrated to 2300 to 1 which seems to be an average partition ratio in the lungs of adults - as calculated from the many paired blood and breath samples taken over the years. But that does not answer the inquiry here.

The 2100 to 1 ratio causes an under reading of the measured blood alcohol concentration in about 85% of all of the paired samples. Dubowski[2] fixes the figure at 86%. Of the remaining 14% of the pairs he found that in 2.6% of them the converted

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[2] I use his percentages as a framework for developing the conclusions which follow because I find that his work produces the most refined and accurate percentages in that regard.

BrAC and measured BAC turned out to be the same. In 11.4% of the pairs the Breathalyzer converted reading was higher than the measured BAC in the venous whole blood sample taken. It is this 11.4% that requires further investigation because it is only there that there lies a possibility that a subject will receive a higher reading (.10% or over) when his true brain alcohol level is lower than .10%. In all of the other cases the converted BAC will be either lower than or equal to the true BAC. There can be no unfair conviction in either of those cases.

Within that 11.4% of overreadings, there is no conceptual concern where the true BAC is at least .10% and the converted BAC is even higher. For example, if true BAC were .11 and converted BAC is .12, there is no unfair conviction.

On the reverse end there is no concern at all where the converted BAC is lower than .10 even if the true BAC is lower still. There can be no finding of guilt (absent traditional evidence) where the Breathalyzer reads less than .10. Dubowski recognizes that forensic reality and in going through the hundreds of pairs that he used he found that at the "critical level" of .10 there is a possible overestimation of only 2.3%.

It must be understood that the 2.3% applies to the possibility of separate pairs from the same individual resulting in an overestimation. It does not apply to people.

In his experiments, as well as those of Jones, Shajani, Lucas and Gullberg, one subject produces many pairs. Most of them are underestimates. It does

not mean that if that subject or some one accused of drunk driving were given a test that there is a probability that at that particular point in time there would be an over-estimate. He, as do Jones, Shajani, Lucas and Gullberg, finds no overestimation in the post-peak phase of alcohol absorption and elimination. Whether a person takes a single large drink of alcohol or a large amount spread over a long period of social drinking; whether he drinks on a full or empty stomach, there comes a point, after the last intake of alcohol, where his BAC rises to a high point and gradually decreases as the process of bodily elimination of alcohol takes place. After that peak there are no overestimations. The ones that take place occur in the pre-peak or absorptive stage. The alcohol rise is much quicker in time

than its decrease. And it is not surprising in that rapidly rising BAC period to find the Breathalyzer reading higher than a simultaneous venous blood sample - because, again, it is reading alcohol in the breath, the closest indication of what alcohol in the arterial blood is doing to the brain. It is known that venous blood has not yet caught up with the higher arterial blood reading during the period of relatively sharp increase. In, other words, rather than considering the 2.3% overestimation to be an error, it is probably correct and it is this venous blood sample which is in error as a predicator of what is occurring at that moment in the brain.

In all of his tests Dubowski has found a range of these calculated ratios based on paired samples from a low of 1706

to 1 (one pair) to a high of 3063 to 1.[3] No two individuals have the same lung partition ration and for one individual the ratio varies with time as his BAC rises and falls with absorption and elimination. That is not surprising for Henry's Law states that a partition ratio will vary according to the concentration of the volatile substance in the liquid.

The variation of the ratio stems from this continuing change in the blood alcohol concentration from one moment to another and it can vary, as Dr. Hlastala explained, by differences in lung structure and lung health, as well as core body temperature - Henry's Law, again - which is usually 37° C (98.6F) but which can be

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[3] His range of variability is the most acceptable of all because of the precision of his test procedure.

elevated or depressed at the moment of the test, as well as breathing patterns and even hematocrit levels in the blood of an individual. With all of these variables - especially that of time for absorption, it is impossible to say that any person has a specific blood-breath ratio in his lungs. Again 2300 to 1 seems to be the best average figure for all people and all BACs. 2100 to 1 is used and gives lower than true readings in all cases[4] except a few in the absorptive period and as to that time, the breath alcohol reading is more reliable than the venous blood reading.

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[4] It is quite clear that from the standpoint of removing drunk drivers from the highway, the vast majority of those tested "get a break" from the reading. It is this fact that has led many states and countries to legislate an alternative <u>breath</u> standard to the present blood standard, e.g. .10 gr. per 210 liters of breath.

For the breath reading instruments the principal problem is getting a sample of the alveolar breath in the lungs. It is there that one will find the maximum concentration of alcohol transferred from the blood. That reading, deep down inside the lungs, cannot be taken. The best that can be obtained is what the subject blows out. At the beginning of the "blow" the breath will be from upper respiratory passages where only slight amounts of alcohol might be present. That is why, in order to get a realistic and meaningful breath sample the subject is instructed to blow steadily; the first breath received is simply passed through the measuring chamber and the operator traps only what he deems to be "end-expiratory" breath (the closest one can come to true alveolar breath) for the

reading. To the extent that "end expiratory" breath is not obtained, the reading will be lower than it should be. That factor, too, can drastically affect the "paired" ratio developed.

The so-called variation in blood-breath ratios is a useless chase, except as noted, to get a sense of where the average figure lies. As he, Dubowski, terms it, a blood-breath "ratio" is a "moving target"; it is only a mathematical calculation and it proves nothing with regard to the reliability of the test.

The best proof of reliability of the reading is the second test. The two tests 15 minutes apart eliminate the possibility of mouth alcohol falsely elevating a reading; if they are with $\pm$ 10% of one another (.01 at the .10% level) one can have confidence in the results and if the

lower of the two is used for proof, the subject receives an additional benefit (50% lower than if the readings were averaged). If, the two tests differ by more than .01 (at a .10% level) a third test should be given to be sure that a variation of .01 or less is obtained - and then the lower of the two readings should be used.

CONCLUSIONS OF FACT

1. The Breathalyzer, Models 900 and 900A, is a scientifically reliable and accurate device for measurement of the alcohol content of the breath of an individual (assuming proper functioning of the instrument and a qualified operator).

2. In converting at a ratio of 1 to 2100 the breath alcohol concentration present in the individual's blood, the Breathalyzer reading is not scientifically accurate.

3. Calculated blood/breath ratios are worthless for forensic purposes. They are subject to so many variables as to be unusable except for gross estimates of an individual's true lung partition

ratio - and then only at a particular moment in time. (Borkenstein, Dubowski, Payne, Jones, Lucas).

4. In a prosecution for drunk driving the Breathalyzer calibrated at 2100 to 1 vapor/alcohol ratio, is biased in favor of the accused.

A. It under-reads the average individual by some 9% or 10% compared to a venous whole blood sample that might be simultaneously taken.

B. Its "truncated" reading gives the individual the benefit of anywhere from .001 to .009 on a given test reading.

C. Using the "start line" set on the

Breathalyzer scale gives the individual he benefit of another .003 on any test reading. (All experts agree with the foregoing)

D. The lower value of two consecutive readings taken 15 minutes apart is used for proof.

5. The Breathalyzer gives a correct reading of alcohol in the breath at a particular moment in time. It does not distinguish between pre-peak "absorptive" or post-peak "post absorptive" stages in the intake and elimination of alcohol in

the blood. Those terms are of value only to the scientist.

6. The Breathalyzer does not overestimate alcohol in the blood at the .10% level to the detriment of the accused. That is clearly so in the post-peak state. In the pre-peak state the Breathalyzer reading is more accurate in predicting the amount of alcohol affecting the brain that is a venous blood sample and it cannot be empirically demonstrative that it is in error, so long as two breath readings are taken within 15 minutes of each other; do not differ by more than .01% and the lower of the two is used for proof purposes - (Jones, Shajani, Dubowski, Lucas).

7. To give readings that can be used with confidence, the operator must be sure that at least 20 minutes has expired since the last ingestion of alcohol to avoid the presence of "mouth" alcohol which can give a falsely high reading.